

## **The Art Corner**

“One of the key objectives of the project is to amaze an audience of high expectation. Amazement goes beyond mere engineering excellence and require to venture into a new spatial experience. Therefore the project – like any true object of desire - will at first appear mysterious, a new territory to be discovered. There needs to be this moment of magic that we feel under of an original achievement. The **House of Culture** is more that a state of art. It is inspiration. There must be a moment of puzzlement, the spark before we are also able to enjoy the more familiar items with ease and comfort. The mixture of inspiration, progress and ease is what we are looking for.”

### **A. Architectural Objective**

Beirut, one of the oldest and culturally richest cities in the world, is a mixture of “old” and “new”. This mixture can be experienced in everyday life of the metropolis. Inspired by this richness and mixture architectural form of the project combines conventional and unconventional. Originated from the block constraints, the form is chopped on the edges. This creates unexpected surfaces for interior and exterior spaces of the project. Walking down the street, one will recognise brick walls of the House of Culture which are aligned parallel to the street. By the time the street ends there will be a new experience waiting for the audience. In this project every corner is a new form with different colours. It constantly changes throughout the journey of the pedestrian on the urban fabric of Beirut.

A project which functions as one, yet provides individual signature and address for the variety of civic and commercial uses. It is a singular development as an expression of its component parts. The individual personalities of the uses offer an intangible value to the occupant, operator and a special experience for the Visitor.

### **B. Spatial organisation**

Level -3, -2, -1: There are 3 levels below ground for car-park. Total capacity of the car-park is 280 cars. Elevators in the car-park go to the reception on the ground level.

Ground Floor: The main entrance to the building is on Rue Chalhoul on ground floor. Elevators and stairs in reception connect this floor to the floors above. Elevator core of the administration and management is separated from the public. There is a cafe and a shop on this floor which has a separate entrance. There is direct access from this floor to the cinema.

Ground Floor Mezzanine: The reception hall is on this floor. There is a cinemateque which has direct access to the cinema. There is an entrance for the delivery and staff on the Avenue de General Fouad Chebab.

Level 2: The workshops and training rooms locate on level 2. There is the reception of the library which goes to the main library by elevators and stairs.

Level 3: The library is on this floor. There are audiovisual services and meeting rooms.

Level 4: The exhibition room is on level 4. There are workshops connected to exhibition room. On the back side there are administration rooms.

Level 5: There are management and administration rooms on level 5. There is a cut of the exhibition spaces which are located on level 4. The height of the exhibition spaces are double size of the regular floor height.

## **C. Technical Building Response**

### **Concert Theatre Functionality and Flexibility**

The concert theatre has been conceived in response to the program of its use which has been defined as multipurpose, functioning equally well for Dance, Orchestra, Opera, Drama, Musicals, Lectures and many different performance types. To achieve high quality for all performance types we have designed into the project many systems discussed below.

#### **General room shaping and geometry**

Great care has been taken to shape the room to optimize sightlines, acoustics and comfort. We have endeavored to make the room as intimate as possible to make the connection between artists and audience close as is practical.

In order to accommodate a full range of events, from unamplified symphonic music to heavily amplified popular music shows, the Concert Theater has been designed to have a large range of acoustical adjustability. The overall volume of the room needs to be sufficient to provide appropriate reverberation needed for symphony music and other unamplified music performances. For amplified events where much less reverberation is desired, a comprehensive system of adjustable mechanized heavy-weight velour curtains can be used to reduce

reverberation. The adjustable acoustically absorptive fabric systems will temper the reverberance to provide an appropriate acoustic for theatre, opera, and amplified events.

### **Main Auditorium**

Main hall has been designed to allow many variations like courtyard, theatre, arena, thrust, end-stage and traverse.

The highest standards of acoustic separation are achieved by the use of box in box type construction – i.e. an inner box built within an outer box with connections between the two only by acoustic bearings.

Lateral stability to this part of the building is provided by the stiff box structure made up of reinforced concrete walls around the auditorium and stage. This will be utilized to resist lateral loads arising from wind, inclined vertical elements and seismic effects. It is anticipated that the latter will be substantial. The walls will be continuous from roof to foundations.

The main seating area will be supported by a gently sloping reinforced concrete slab supported by columns below on a modest grid. As noted above, consideration of acoustic performance will need to be undertaken to assess whether an additional “floating slab” isolated from the main structural slab will be desirable. This would, of course necessitate an increase in structure for the main slab. The build-up above the slab to seating level will be formed by a lightweight proprietary frame system.

The rear balcony seating structures are likely to comprise a series of concrete beams supported by the back wall and internal columns between which, terraced concrete slabs will span. Side balconies are envisaged as slabs continuous with areas outside the auditorium and cantilevering internally beyond the enclosing concrete walls of the concert hall. The seating slabs will also brace the walls of the auditorium, some of which are inclined, against the perpendicular walls which will act as shear walls. The build-up above the structural slab to seating level will again be formed by a lightweight proprietary frame system.

The roof of the concert hall space is a concrete slab supported by deep steel trusses spanning transversally. The steel trusses allow for circulation in the technical zone and may also support a further internal concrete slab for additional acoustic protection, if required.

The acoustic paneling and equipments are suspended from the trusses inside the space.

The fly tower roof is envisaged as a series of steel trusses supporting all the scenery equipment and levels.

### **Structure**

The structure is made of a reinforced concrete system based on concrete columns and concrete flat slabs. Main auditorium is built by the use of box in box type construction. The roof is made

of a steel truss structure to suspend large span and technical equipment. The two concrete cores reify the system for horizontal movement. The grid of the column is based on 10 by 10 spans. Foundation of the building should be confirmed after geologic studies.

### **Facade**

It is composed of two separate systems. The first one is standard curtain wall made of reflective glass with silver coating which is gold coloured. Frame system is made of aluminium extrusion. The second facade system is brick cladding that are made of recycled brick coated with new painted coloured in white and black to give the gradient effect. This decision of facade gives life back to the used materials. The number of openings on the facade is restrained due to program and energy efficiency. Skylight opening is made of glass that can be switched off automatically to black the space out.

The black bricks on the roof are solar panels. They bring light in the building and reduce the energy consumption 30 percent.

### **Service**

They are mainly located in two different parts of the building; on the top floor, under the roof and under the auditorium. The major part is under the auditorium to make the plant room more efficient.

### **Lighting Strategy**

Some of the bricks are light boxes. They light at night to attract people around. The building will glow more depending on the number of the people inside.

### **Solar Lighting Panels**

With high quality fiber optics, sunlight reaches 20m into buildings from the nearest roof or façade.

It employs an array of optical lenses to collect and concentrate incoming sunlight in the chosen rooms. Sunlight is emitted through a luminary, specifically designed to recreate the feeling of sunlight.